Amendments of the Claims:

A detailed listing of all claims in the application is presented below. This listing of claims will replace all prior versions, and listings, of claims in the application. All claims being currently amended are submitted with markings to indicate the changes that have been made relative to immediate prior version of the claims. The changes in any amended claim are being shown by strikethrough (for deleted matter) or underlined (for added matter).

1. (Original) In a VCT system, a method for identifying a direction of cam torque, the method comprising the steps of:

   providing a cam sensor wheel having a plurality of teeth including an index tooth formed upon the circumference of the cam sensor wheel;

   providing a sequence of pulses corresponding to the plurality of teeth; and

   using one tooth among the plurality of teeth for identifying the direction of cam torque.

2. (Previously presented): The method of claim 1 further comprising the step of using the plurality of teeth to determine a dead time.

3. (Currently amended): The method of claim 1 further comprising the step of pausing controller updating during dead time, thereby when there is no torque available to drive the variable cam timing system (VCT) ~~VCT~~ towards its commanded position, the controller stops accumulating unnecessary values.

4. (Previously presented): The method of claim 1, wherein the plurality of teeth is symmetrically distributed upon the circumference of the cam sensor wheel.

5. (Previously presented): The method of claim 1, wherein the plurality of teeth is asymmetrically distributed upon the circumference of the cam sensor wheel.

6. (Previously presented): The method of claim 1, wherein the one tooth is the index tooth.

7. (Currently amended): The method of claim 1, wherein the variable cam timing system (VCT) ~~VCT~~ system is a cam torque actuated (CTA) ~~CTA~~ VCT system.

8. (Currently amended): The method of claim 1, wherein the variable cam timing system (VCT) ~~VCT~~ system is a torque actuated (TA) ~~TA~~ VCT system.

9. (Currently amended): The method of claim 1, wherein the variable cam timing system (VCT) ~~VCT~~ system is an oil pressure actuated (OPA) ~~a OPA~~ VCT system.

10. (Previously presented): The method of claim 1, wherein the cam tooth wheel is asymmetric.

11. (Previously presented): The method of claim 1, wherein the cam tooth wheel is symmetric.